GOOGLE EARTH AND CALIFORNIA STATE GOVERNMENT GIS

Given all that is on our plates these days as we work hard to transform State IT to make it more responsive and cost effective, geographic information system (GIS) related matters are probably viewed by many of our often over extended Chief Information Officers (CIO) as a source of unnecessary and relatively unimportant work and complications. Many CIOs would like nothing better than to believe that someone else is taking care of this for them and that they don't need to invest their already over committed time, energy, and money in understanding GIS and how to integrate program-initiated GIS projects into their operations. Also, it is clear that more than a few of our CIOs have only a passing familiarity with GIS thinking of it mostly as a way to make maps. They do not seem to appreciate the power of GIS for analysis, modeling, visualization, asset management and decision support for more effective government services.

Certainly developers of globe-based "geo-browsers" (e.g., Google, ESRI, Microsoft, NASA, and others) deserve much credit for raising public awareness about computer mapping. The spread of affordable broadband and no-cost geo-browsers have greatly raised the bar on public expectations as to ease of use and ready availability of location based information and services. Also, not to be underrated is their allowing for imaginative recombination of location-based data and functions (e.g., mash ups), often in ways unanticipated by the producers of these data and services. However, the current versions of these geo-browsers do not support more advanced spatial analysis required by many government programs. We should not forget that it is the mission of Google, Yahoo, AltaVista and the like seek to discover and serve largely unstructured content provided by others. It is up to the rest of us to create and maintain content and ensure that any data we provide are of high quality and serve our customers well.

Current efforts to improve California's geospatial governance are more focused on ensuring that we have quality geospatial content adequate to our needs than on hardware and software. The above-named companies have given us more choices in how to consume geospatial web services, deliver this content, and make it easier for non-GIS professionals to make use of these data. Given that the availability of these no or low costs solutions is now being used as an excuse to scale back our own GIS governance efforts, it is ironic that their success has been fueled by the hard work and substantial investments made by government agencies at all levels to make imagery and other geospatial content available the public. For example, the high-resolution, natural-color aerial imagery of California procured through a collaboration brokered by the California Resources Agency's CERES program (www.ceres.ca.gov) in 2006 has been given to Google, ESRI, Microsoft and NASA and made available for download at no cost over the Internet through the California Spatial Information Library (http://gis.ca.gov/). This was done as part of our ongoing efforts to make certain that publicly funded data is made available to and benefits the general public.

Unfortunately, the aforementioned imagery success story is an exception that proves the rule. California State government has a poor track record on cooperating across agencies on data investments geospatial or otherwise. Our budget, project approval, and procurement processes work against us in this

regard. We failed, for example, to pull off a much more modest collaborative purchase of companion color-infrared imagery that would have been extremely useful in mapping California's natural vegetation, a subject of intense interest among environmental groups, state agencies, and the legislature for the 2007/08 Fiscal Year. This failure was due to the lack of purchasing mechanisms that enable the pooling of monies from different sources.

Many of our government agencies, state, federal, local and tribal are sitting on valuable stores of geospatial data that would go a long way toward addressing pressing public policy challenges if this content could be made available as web map and feature services. It is notable that in California a good number of local agencies are far ahead of state agencies in making their geospatial content available through Google. These same agencies and the general public would benefit greatly from pooling resources to purchase or cooperate on so called "framework" geospatial data (e.g., imagery, digital elevation, parcels, roads, critical infrastructure, etc.). But we are frustrated in our efforts to do this by the absence of an adequately staffed and funded state geospatial information office like we see in many other states (see http://www.oregon.gov/DAS/EISPD/GEO/ogic/OGIC.shtml for a good example of a state enterprise GIS program). Here in California, we lack the governance that would facilitate a disciplined, informed approach to state geospatial investments. We also have a tremendous inconsistency in data sharing policies and practices even among programs within the same agency.

California Public Records Act requirements and expectations for greater transparency in government from our current Governor and the Legislature are not yet being adequately addressed when it comes to government program data. We can do much better with only a very modest investment in governance, coordination and collaboration.

We should not allow the "wow" factor of today's latest crop of geo-browsers to distract us from the real prize. Quality content now more than ever is of utmost importance and deserving of our full attention and a bit of our budget.

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